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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,761

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Heinz-Peter Klein

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NATIONAL STARCH AND CHEMICAL COMPANY

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EXAMINER

REDDY, KARUNA P

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

02/28/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@nstarch.com

Office Action Summary	Application No. 10/577,761	Applicant(s) KLEIN ET AL.	
	Examiner KARUNA P. REDDY	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/13/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed on 12/13/2007.
Applicants cancelled claims 1-11 and added new claims 12-21. Claims 12-21 are currently pending in the application.
2. Amendment to the title of English translation and specification to correct a typographical error is acknowledged.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

4. Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 17 is dependent on claim 12 and recites copolymers having one or more carbonyl groups, none of which have an aldehyde or keto group as required in the independent claim 12.

Claim Rejections - 35 USC § 102

5. Claims 12-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Ball et al (US 6, 063, 865).

The discussion with respect to Ball et al in paragraph 6 of office action mailed 7/5/2007 is incorporated here by reference. Furthermore, see example 3, wherein polymerization of allyl acetoacetate (keto group containing monomer) is followed by addition of polyvinyl alcohol (a protective colloid) prior to drying. Particularly, in many applications in the building sector, this powder composition is very advantageous in many formulations since the carbonates and hydroxides present in many formulations and ready-to-use mixtures of building materials can be mixed in the dry state with these binders (column 7, lines 29-34). Powdered building material in the dry state requires the addition of water to render it useful for its intended use, said powdered building material consisting as a component thereof, the crosslinkable powder composition (column 11, lines 14-15; column 12, lines 1-3).

Therefore, Ball et al anticipate the present claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Weitzel et al (US 2003/0065079 A1).

The discussion with respect to Weitzel et al in paragraph 8 of office action mailed 7/25/2007 is incorporated here by reference. Furthermore, the cement containing building adhesive formulations are used as thermal insulation adhesives (paragraph 0043). The cement free building adhesive formulations are used in bonding of polystyrene boards onto exterior walls of buildings as thermal insulation (paragraph 0044) and read on the polystyrene based composite system of present claims. To produce the building material compositions, the polymer dispersion or the polymer powder is mixed in appropriate mixtures with further constituents of the formulation e.g. cement, filler and further additives, and homogenized. Preference is given to producing a dry mix and adding water required for processing immediately before processing (paragraph 0042).

Weitzel fails to disclose polymerizing monomers comprising one or more carbonyl groups which are chosen from keto or aldehyde groups.

However, while Weitzel's examples are directed to polymerizing carbonyl monomers which do not comprise keto or aldehyde groups, it is noted that exemplification is not a requirement for proper 103 rejection. Given that, attention is drawn to Weitzel's disclosure (paragraph 0019), which mentions using diacetoneacrylamide as an auxiliary monomer, if desired. Therefore, it would have been obvious to use diacetoneacrylamide which is a keto group containing carbonyl monomer in the polymerization process of Weitzel.

9. Claims 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weitzel (US 2003/0032711 A1) in view of Ball et al (US 6, 063, 865).

The discussion with respect to Weitzel in paragraph 5 of office action mailed 7/5/2007 is incorporated here by reference. Furthermore, to produce the building adhesive, the polymer powder is mixed with the further formulation constituents such as cement, filler and other adjuvants in appropriate mixtures, and homogenized. Preferably, a dry mix is prepared and water required for processing is added immediately prior to processing (paragraph 0035).

Weitzel differs with respect to carbonyl containing monomers comprising keto- or aldehyde groups and their weight percentage.

However, Ball et al teach a film forming polymer powder which is redispersible in water and has good storage stability, blocking resistance and is free-flowing. See example 3 wherein the polymer comprises allyl acetoacetate (a

keto-group containing carbonyl) as a monomer in weight percentages that read on the weight percentage of present claims. Examples of applications are those in chemical building products in combination with inorganic, hydraulic binders such as cement and knifing fillers. The dispersion powder composition is preferably used as binder in fields of application in which not only good adhesion but also reduced water absorption and/or good solvent resistance are desired (column 7, lines 6-17). Therefore, it would have been obvious to use the polymer powder of Ball et al in the process of Weitzel, for the above mentioned advantages and because of the utilization of film forming powder of Ball et al for essentially similar purposes as that of Weitzel.

10. Claims 12-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jodlbauer et al (US 2002/01623485 A1) in view of Ball et al (US 6, 063, 865).

The discussion with respect to Jodlbauer et al in paragraph 7 of office action mailed 7/5/2007 is incorporated here by reference. Furthermore, most preferred are compositions comprising a) 8 to 16% by weight of Portland cement, b) from 75 to 90% by weight of one or more fillers, c) from 0.05 to 0.5% by weight of one or more thickeners, d) from 1 to 10% by weight of redispersible powders, e) zinc oxide and f) $\text{Ca}(\text{OH})_2$ (paragraph 0031-0038). The composition is generally prepared by mixing components a) to f) to a dry mortar in conventional

powder mixers and homogenizing the mixture. The amount of water needed for processing to mortar compounds is added prior to processing (paragraph 0038).

Jodlbauer et al differs with respect to carbonyl containing monomers comprising keto- or aldehyde groups and their weight percentage.

However, Ball et al teach a film forming polymer powder which is redispersible in water and has good storage stability, blocking resistance and is free-flowing. See example 3 wherein the polymer comprises allyl acetoacetate (a keto-group containing carbonyl) as a monomer in weight percentages that read on the weight percentage of present claims. Examples of applications are those in chemical building products in combination with inorganic, hydraulic binders such as cement and knifing fillers. The dispersion powder composition is preferably used as binder in fields of application in which not only good adhesion but also reduced water absorption and/or good solvent resistance are desired (column 7, lines 6-17). Therefore, it would have been obvious to use the polymer powder of Ball et al in the process of Jodlbauer et al, for the above mentioned advantages and because of the utilization of film forming powder of Ball et al for essentially similar purposes as that of Jodlbauer et al.

Response to Arguments

11. Applicant's arguments, see page 6, lines 8-16, filed 12/13/2007, with respect to objection of claims 3-10, and rejection of claims 1-10 under 35 U.S.C. 112, 2nd paragraph and 35 U.S.C. 101, have been fully considered and are persuasive.

The objection to claims 3-10 and rejection of claims 1-10 under 35 U.S.C. 112, 2nd paragraph and 35 U.S.C. 101 has been withdrawn.

12. Applicant's arguments with respect to rejection of claims 1, 5-8, 10 and 11 under 35 U.S.C. 102(a) as being anticipated by Weitzel (US 2003/0032711 A1); claims 1-8 under 35 U.S.C. 102(b) as being anticipated by Ball et al (US 6, 063, 865); claims 1, 5-9 and 11 under 35 U.S.C. 102(a) as being anticipated by Jodlbauer et al (US 2002/01623485 A1); claims 1-8 and 11 under 35 U.S.C. 102(a) as being anticipated by Weitzel et al (US 2003/0065079 A1), have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARUNA P. REDDY whose telephone number is (571)272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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